



IAS PARLIAMENT

Information is a Blessing

A Shankar IAS Academy Initiative

MONTHLY MAINSTORMING

AUGUST 2018

Shankar IAS Academy™
Door No 18, New Plot No 259 /109,
AL Block, 4th Avenue, Shanthi Colony,
Annanagar, Chennai - 600040.



AUGUST 2018

I N D E X

GS - II	3
1. Polity	3
2. Government Policies & Interventions	6
3. Social Justice.....	10
4. Health.....	12
5. Corporate Governance	15
6. Bilateral/International Relations	16
GS - III	18
7. Economy.....	18
8. Agriculture	20
9. Science & Technology	21
10. Environment	23
11. Infrastructure.....	26
12. Disaster Management.....	30
13. Defence.....	31
14. Internal Security	32

MAINSTORMING – 2018

GS - II

1. POLITY

1.1 Recently, Lok Sabha passed a Bill that proposes to allow non-resident Indians (NRIs) to use proxies to cast votes on their behalf in Indian elections. Discuss the advantages and disadvantages of proxy voting. What other viable alternatives do you suggest?

Proxy Voting

- Under proxy voting, a registered elector can delegate his/her voting power to a representative.
- In India, only a “classified service voter” is allowed to nominate a proxy to cast vote on his/her behalf until now.
- They include members of the armed forces, BSF, CRPF, CISF, General Engineering Reserve Force and Border Road Organisation.

Advantages

- It reduces the hardship faced by overseas electors in exercising their franchise by being present in India on the day of polling.
- It helps to devise policies which are inclusive of their interests and incentivises them to participate in nation-building.
- The additional votes, polled through this way, will obviously play a crucial role in state and general elections.

Disadvantages

- **Prone to malpractices**
- **Trust deficiency** (A proxy voter may not vote as per the wishes of the overseas voter)
- **Discriminatory to domestic electors**
- **Violates** the principle of **secrecy of voting** and **free and fair elections**
- It will further lead to the corrupt practices of purchasing votes.

Other alternatives

- **Online voting** (but this could compromise secrecy of voting)
- **Voting by post** (E-postal ballot is a ballot paper that is sent to the voter electronically and returned to the returning officer by post)
- **Voting at Indian mission** abroad (but it is difficult to organise polling with limited resources)

1.2 Given that, there is no cap on expenditure by political parties for propagating their program, candidates' account of expenditure incurred doesn't even cover a fraction of the actual spending in many cases. In this context, do you agree with the view that a limit should be imposed on the amount of money that parties can spend during an election campaign? Justify your stand.

Arguments in favour

- **Cap on candidate meaningless** – So far, there is no limit on what a political party can spend during the election.
- This makes the limit on what the candidates can spend absolutely meaningless because if the candidate spends more than the stipulated limit, it can always be shown as part of the expenditure incurred by the party.
- **Level playing field** – This could provide a level-playing field for everyone contesting elections and ensures that a candidate cannot win only because she/he is rich.
- **Unaccounted money** – It would also curb the menace of unaccounted money in elections.

Arguments against

- **Under-reporting** – As per an analysis of expenses in 2014 Lok Sabha elections, as many as 176 MPs (33%) had declared election expenses that were only less than 50% of the limit.
- This clearly indicates that candidates may not be providing true accounts of their poll expenses to the EC.
- There is no reason why the same phenomenon of under-reporting will not transpire amongst parties.
- **Popular support** – Political parties mobilise funding on the basis of their voting support base and their membership.
- Any amount of money spent forwarding the agenda a party espouses will only reflect its support base's voice.
- Hence, there is no reason to introduce any cap on such collection or expenditure.
- **Weak assumption** – It is based on a weak assumption that voter decisions are swayed by party's spending power.
- **Encourage Caste politics** – Campaigns led by the political parties are based on vision documents.
- **Difficult to implement** – It would be very difficult to fix an actual, viable limit of such a cap and then implement such a cap.
- If this is limited in any sense, it would certainly encourage politics based on caste and individual influence.
- Therefore, the EC may moot for better transparency than limit the expenses.

1.3 Discuss the advantages and disadvantages of Vidhan Parishad. Also comment whether such second chambers are necessary or not.

Advantages

- An Upper House provides a forum for academicians and intellectuals.
- They are arguably not suited for the nature of electoral politics.
- In essence, it provides a mechanism for a more serious appraisal of legislation.

Disadvantages

- The forum is likely to be used to accommodate party functionaries who fail to get elected.
- This may defeat the objective of getting intellectuals into the legislature.
- Besides, the second chamber is also an unnecessary drain on the exchequer of the state.
- It is also a restraining force against the dominance of elected majorities in legislative matters.

Arguments in favour

- There exist larger chances for a single chamber to become rash and one-sided and swayed by emotions or passions.
- If there are two chambers, the measures passed by one would be scrutinized by the other minutely.
- Hence the laws enacted finally would be carefully analyzed and thoroughly discussed.

Arguments against

- If a majority of the members in the upper house belong to the same party which holds majority in the lower house, the upper house will become a mere ditto chamber.
- On the other hand, if two different parties are holding sway in the two Houses, the upper house will delay the bills for four months unnecessarily.
- If there was any real benefit, all States in the country should have a second chamber.
- The fact that there are only seven such Councils suggests the lack of any real advantage.

1.4 Article 35A of the Constitution is now being vigorously contested with its constitutional validity being challenged. Do you think it should be scrapped? Comment

Arguments in favour of 35A

- A: 35A is a recognition of the conditional accession of J&K into India. Scrapping such recognition would render J&K's accession with Union of India "shaky".
- Also, because the accession of J&K was conditional to their being given their rights, their sovereignty with regard to matters concerning land and settlement are preserved.
- Therefore, it cannot be challenged on the ground that it violates fundamental rights or the basic structure of the Constitution because it is pursuant to an original part of the Constitution and pursuant to the limited accession signed with J&K.
- A: 370 empowers the President of India to extend with requisite exceptions and modifications the other provisions of the Indian Constitution to J&K as may be necessary.
- It is pursuant to A: 370 that A: 35A was inserted by way of the 1954 Presidential order.
- Scrapping of special laws would also close the last opening for reconciliation in Kashmir.

Arguments against 35A

- **Constitutional validity** – It was added to the Constitution without undergoing the procedure for constitutional amendments as laid down in Article 368.
- The Presidential Order was issued in exercise of the power conferred under Article 370 (1) (d) of the Constitution.
- Whether such power also extends to inserting a new Article in the Constitution is contentious.
- **Equality** – It treats non-permanent residents of J&K as 'second-class' citizens.
- Such persons are not eligible for employment under the State government and are also debarred from contesting elections.
- Scholarships, forms of aid etc are also not allowed to non-residents.
- **Gender neutrality** – The major sufferers of this provision are women who marry outside J&K.

- Though they retain their Permanent Resident Certificate, their children cannot be permanent residents. This restricts their basic right of inheritance.

1.5 State Finance Commissions (SFCs) are a great opportunity to build regional equity, but it is been undermined by not providing the necessary environment. Analyse.

Importance of SFC

- While the UFC is tasked with rectifying vertical and horizontal imbalances at the Union-State level, the SFCs are tasked with the same with reference to State/sub-State-level institutions.
- Its primary task is to rectify growing horizontal imbalances in the delivery of essential public services to citizens.
- By implication, an SFC is the institutional agency to implement the golden rule of cooperative federalism that every citizen should be assured minimum public goods irrespective of her choice of residence.
- It is only when inter-State disparities are reduced by the UFCs through their inter-se distribution criteria and intra-State disparities are reduced by SFCs through the horizontal distribution criteria that the Indian federation becomes a sustainable and inclusive nation-state.

How it is been undermined?

- SFCs are seen to be of **inferior constitutional status** than the UFC.
- Several **sufficient conditions** remain **unfulfilled** in the case of SFCs.
- For example, the financial reporting system of the Union and States is well laid down.
- Contrarily, local governments with no proper budgetary system are in deep disarray and, because of that, SFCs face a crucial problem of reliable data.
- The seriousness, regularity, acceptance of UFC recommendations and their implementation are conspicuously absent when it comes to SFCs.
- The SFCs' compositions are largely of serving and/or retired bureaucrats rather than academics.

2. GOVERNMENT POLICIES & INTERVENTIONS

2.1 Even though leprosy is completely curable now, there lingers discrimination against the affected. Discuss how the Personal Laws (Amendment) Bill, 2018 tries to alter the situation.

- With the help of Modern medicines, especially multi-drug therapy, leprosy is completely curable now.
- But, still over 110 Central and State laws discriminate against leprosy patients.
- These laws stigmatise and isolate leprosy patients and are coupled with age-old beliefs about leprosy.

The Personal Laws (Amendment) Bill, 2018

- It seeks to make a start in amending the outdated statutes.
- It attempts to end the discrimination against leprosy persons in various central laws:
 - a) the Divorce Act, 1869
 - b) the Dissolution of Muslim Marriages Act, 1939
 - c) the Special Marriage Act, 1954

- d) the Hindu Marriage Act, 1955
- e) the Hindu Adoptions and Maintenance Act, 1956

- The Bill eliminates leprosy as a ground for dissolution of marriage or divorce.
- The amendments omit the provisions which stigmatise and discriminate against leprosy-affected persons.
- The Bill is meant to provide for the integration of leprosy patients into the mainstream.
- However, the Bill is only a small step in addressing the issues.

Suggestions

- An affirmative action law recognising their rights and benefits can serve a larger purpose.
- It may help remove misconceptions about the disease such as physical segregation of patients is necessary.
- While governments may have to handle the legislative part, society has an even larger role to play.

2.2 Should India's policy of no foreign aid for relief and rehabilitation during disasters be done away with? Comment

Arguments in favour

- **Super power dream** – One of the contexts for the 2004 policy was the India's superpower dream.
- Neither taking aid from countries for disaster relief is a sign of weakness nor would turning away foreign assistance show India as more powerful.
- **NDMP guidelines** – Under the National Disaster Management Plan (NDMP) 2016, India may accept foreign assistance, if the national government of another country voluntarily offers.
- But, the government has been following the policy on disaster aid decided in 2004.
- There is thus a clear **mismatch** between convention and written document.
- **Fearing foreign hand** – It was felt that assistance would leave scope for spies who would come with the package, interfere in the country's internal affairs.
- The development of technology is such that foreigners do not need to come in to India to know what is happening or to influence decision-making here.
- India should not be mixing up its 20th century security fears with 21st century realities of technological advancements.

Arguments against

- All aid is routed through the Centre for reasons that have stood the test of time.
- Consider, for example, the manner in which development assistance is being used by the People's Republic of China to warp the local politics of many countries along its periphery.
- Clearly, it would be a significant security threat, if china being given a free hand to contribute to North Eastern states and Pakistan be allowed to help out government of J&K.
- Foreign policy is in the Union's remit according to the Constitution, and allowing state governments to form their own bilateral aid and assistance ties is tantamount to allowing them to conduct an independent foreign policy.
- This cannot be considered appropriate, however dire the emergency.

2.3 Important safeguards and a cost-benefit analysis are still lacking in the DNA Technology (Use and Application) Regulation Bill, 2018. Discuss.

Missing safeguards

- The Bill allows for involuntary collection of DNA samples from suspects of criminal cases with certain restrictions.
- Further, if it is only a case of minor offence, then a magistrate order is required before DNA samples are collected.
- Also, the Bill does have provisions for the destruction of DNA samples and removal of innocent people's DNA profiles from the database.
- However, these provisions are inadequate as, the removal of innocent people's records has not been stated to be automatic.
- Also, considering the lack of expertise within our police departments and the carefree attitude for procedural compliances, there are imminent risks.

Cost-Benefit analysis

- It has been budgeted to allocate a onetime Rs. 20 crore for setting up the database and Rs. 5 crore for its annual maintenance, but this is a pittance.
- Estimates have it that it would cost a lot more to keep the database live and operational and a prudent cost analysis hasn't been done yet.
- Notably, creating large databases is often not a cost-effective way to solve more crimes, and limited resources must be targeted effectively.

2.4 Recent efforts towards creating a robust data protection in India focus on one aspect across various parts of the government machinery - Data Localization. Is data localization really a solution? Discuss.

- Four key pronouncements in quick succession have hailed data localization as the solution to protect Indian consumers and safeguard India's national and economic interests.
- These include recommendations by the Reserve Bank of India (RBI), the committee of experts led by Justice B.N. Srikrishna, the draft e-commerce policy and the draft report of the cloud policy panel.
- But, having data in India **does not mean** that domestic companies will be able to access this data.
- Localization might aid the growth of the data centre and the cloud computing industry in India, but as matter of wider public policy, such an approach is extremely myopic.
- The competitive gains of localization, if any, will be ephemeral and will **drive up the infrastructure costs** for Indian technology start-ups and SMEs.
- The \$167 billion Indian IT industry is export-driven and deals with data of citizens and companies in the US, the EU and other parts of the world.
- Given the comparative trade advantages enjoyed by one section of Indian industry in this context, mandating a strict data localization regime could be perceived as a restrictive trade barrier and spur **retaliatory measures**.
- Competitiveness, not protectionism, will yield positive outcomes in the long term.



2.5 Discuss the salient features of The Motor Vehicles (Amendment) Bill, 2017 and anomalies, if any.

Salient features

- **Good Samaritans** – People coming forward to help accident victims will be protected from civil or criminal liability.
- It will also be optional for them to disclose their identity to the police or medical personnel.
- **Accountability** – Contractors, consultants and civic agencies will be accountable for faulty design, construction or poor maintenance of roads leading to accidents.
- Manufacturers can be fined up to Rs 500 crore in case of sub-standard components or engine.
- **Removal of intermediaries** – The Bill seeks to take the license issuing process online. Tests for driving licences will be automated, and learner's licences will be issued online.
- **Fund** – A Motor Vehicle Accident Fund is proposed to be created. It will provide compulsory insurance cover to all road users in India for certain types of accidents.
- **Penalties & Compensation** – The penalties for violations and compensation to families have been increased substantially from the present amounts.
- **Aggregators** – Aggregators are as yet unregulated in India, and this Bill seeks to change that.
- This Bill made it optional for State governments to follow central guidelines while issuing licences to aggregators.
- Aggregators, however, now have to be compliant with the Information Technology Act, 2000.
- **Insurance** – The Bill removes the cap on liability for third-party insurance introduced in the 2016 version of the Bill.

Concerns

- Some state governments are concerned about the new provisions, Sections 66A and 88A.
- This will empower the Centre to form a National Transportation Policy.
- Notably, it would be through a process of consultation, and not concurrence.
- It will also enable Centrally-drafted schemes for national, multi-modal and inter-State movement of goods and passengers, for rural mobility and even last-mile connectivity.
- The provisions would bring in a new paradigm that would overhaul the sector, and hence the States see it as anti-federal.
- Clearly the issue is not one of legislative competence as the subject is in the Concurrent List.
- So clearly, parliament can make a law defining powers available to the States.
- The opposition is thus more due to the perceived shift of power from the States to the Centre.

2.6 Accessing data stored abroad is the major hurdle for Indian law enforcement agencies in investigation and prosecution of crimes. To what extent the data localisation clause included in the recent draft data protection bill addresses the issue. Discuss.

- Eight of the top 10 most accessed websites in India are owned by U.S. entities.
- Indian law enforcement agencies rely on an outdated Mutual Legal Assistance Treaty (MLAT) process to obtain data stored by U.S. companies abroad.

- This reality has often hindered Indian law enforcement agencies when investigating routine crimes or crimes with a cyber-element.
- To boost law enforcement efforts, the draft data protection bill includes data localization which calls for a copy of user data to be mandatorily localised in India but it mandates local storage of data relating to Indian citizens only.

Concerns with data localisation

- A fundamental error is the belief that the **location of data should determine who has access to it.**
- The U.S. law effectively bars its companies from disclosing user data to foreign law enforcement authorities.
- Technology companies are allowed to share data such as content of an email or message only upon receiving a federal warrant from U.S. authorities.
- This scenario will not change even after technology companies relocate Indian data to India.
- Even if Indian authorities force compliance from U.S. companies, it will only solve a part of the problem because, localisation can provide data only for crimes that have been committed in India, where both the perpetrator and victim are situated in India.
- For investigations into transnational crimes, Indian law enforcement will have to continue relying on cooperative models like the MLAT process.

Course of action

- The Clarifying Lawful Overseas Use of Data (CLOUD) Act, passed by the U.S. Congress will for the first time allow tech companies to share data directly with certain foreign governments.
- This, however, requires an executive agreement between the U.S. and the foreign country certifying that the state has robust privacy protections, and respect for due process and the rule of law.
- The draft Bill comes as an opportunity to update India's data protection regime to qualify for the CLOUD Act.

2.7 Instead of enabling growth, the draft National e-commerce policy tries to establish stringent controls on this nascent sector. Discuss critically.

- The draft policy seems to have been designed to establish stringent controls on this nascent sector rather than enabling growth.
- **Sunset clause** – Sunset clause for discount pricing harkens back to the days of the licence raj, especially in terms of micro-management by the government.
- Apart from violating free market principles, this sort of price control would also be inconsistent with policy in other key sectors.
- **Data localisation** – The need to localise data storage and processing might result in significant rise in costs of products of e-commerce sector.
- Meanwhile, India doesn't possess either server capacities at the required scale or the desirable broadband speeds to deliver cost-effective and efficient data storage and processing services.
- **Inventory model** – Giving permission for inventory-based marketing only to companies with resident Indian managements, and 51 per cent local shareholding doesn't make much sense.
- The added proposal of preferential voting equity favouring Indians is also regressive.

3. SOCIAL JUSTICE

3.1 Using state power to enforce the sacred, both defiles the sacred and messes with the secular. Discuss in the light of the proposed Punjab's sacrilege law.

- Punjab Cabinet recently decided to amend the law to make acts of “sacrilege against the religious books” punishable with life imprisonment.

Defiles the sacred

- The amendment defiles the sacredness of the Books, the eternity of the Words because the status of the Book now becomes an **artefact of state power**.
- Rather than being luminous, potent and transcendent texts, their status is now reduced to a section of the Indian Penal Code.
- It is if the songs of Krishna, or the word of Mohammad, or the teaching of the Gurus, now need the imprimatur of state violence to secure their sacredness.

Messes with the secular

- Blasphemy laws are largely aimed at preserving public order that might get disturbed by actions that flare up religious sentiments.
- While the sanctity of the religion is indeed important, a secular state works not to preserve religion but to preserve law and individual freedoms.
- Hence, the argument that the state needs to use coercive power in deference to religious sentiments (however sincere those sentiments might be), is illiberal and dangerous.
- In this context, actions perpetrated with the deliberate and malicious intention of outraging religious feelings and stir passions have to be curtailed.
- Hence, while laws need to be a minimum safeguard and limited in scope, the current proposal seeks to appease religious groups disproportionately.

3.2 A nuanced slum policy, rather than a one-size fits-all approach, would help in the welfare of slum dwellers. Critically Analyse.

- India's rapid urbanisation has been proceeding apace for decades, but policy solutions have been shots in the dark.
- Current slum policies primarily focus on housing, relocation or in-situ development of multi-storey complexes, which free up swathes of prime real estate.
- But in doing so, they miss out on the brewing socio-economic distress in slums.
- In many established slums, political patronage has produced concrete houses, title deeds, piped water and regularised electricity.
- Here, economic opportunities and employment are key.
- On the other end, slums resembling tented refugee camps need housing and basic amenities.
- To address this, a nuanced slum policy, rather than a one-size-fits-all approach should be made.
- Until these nuances are considered, ambitious but slow-to-implement housing schemes will do little for the welfare of slum dwellers.



3.3 Though India's abortion law was liberal for its time, it has limitations and must be amended. Critically Analyse.

- The MTP Act has limitations that pose barriers to women and girls seeking legal abortions.
- A woman's right to decide for herself, did not and still does not fall within the intent or ambit of the MTP Act.
- Currently, the Act allows abortion up to 20 weeks; however when it comes to foetal abnormalities and pregnancies resulting from rape, this limit of 20 weeks is proving to be a hurdle for both the woman and the provider.
- Women seeking an abortion after the legal gestation limit often have no option but to appeal to the courts for permission to terminate the pregnancy.
- Many women, when denied legal abortions, turn to unqualified providers or adopt unsafe methods of termination.
- Thus, India's abortion law must be amended to take into account agency of women.

3.4 District Mineral Foundation (DMF), instituted to work for the interest of persons affected by mining-related operations has largely failed to accomplish its goals. Critically examine what hampers DMFs from fulfilling its objectives and suggest measures to improve the situation.

- **Mining-affected people excluded** – Officials and political representatives dominate the DMF administration in all states.
- People in mining-affected areas have also been left out from the decision-making process.
- **Poor planning** – None of the DMFs have done a bottom-up planning or developed perspective plans, as required by the law.
- The lack of planning is leading to inappropriate investments. Often, DMF funds are actually being diverted for urban projects that have nothing to do with priorities of mining-affected areas and communities.
- **Administrative setup** – Absence of a proper administrative set-up is also hampering DMFs.
- Except for a handful, no DMF has yet set up an office for planning and coordination.
- **Transparency and Accountability** – Disclosure of information is a major concern as most DMFs are not putting information on investments in the public domain, which they are supposed to do by law.
- There has been no performance evaluation or social audit, which is an essential component for people-centric schemes.

Suggestions

- DMFs can only deliver if they are implemented in the spirit they were enacted in.
- Focus more on bottom-up planning and proper institutional structure.
- Serious efforts should have to be taken to include beneficiaries in decision making and monitoring process unless, it will never make right investments or be transparent and accountable.

4. HEALTH

4.1 To get good nutrition to all, India needs delivery models that are collaborative across the domains. Analyse.

- According to Global Nutrition Report 2016 and the Global Hunger Index, 2017, India ranks at 100 out of 119 countries with a low overall score of 31.4.
- 25% of India's children less than 5 years old are still malnourished.
- Among children less than 5 years, wasting (low weight for height), continues to be 21% in the 2017 index, it was 20% in 1992.
- Over half of adolescent girls and women are anaemic.
- Added to this is the fact that 190.7 million people in India sleep hungry every night.

Concerns with the steps taken

- Both the National Nutrition Strategy (NNS) and the National Nutrition Mission (NNM) have recognised the criticality of working collaboratively across Ministries.
- Yet both are silent on the constructive role of private sector, development agencies and civil society.
- There are no initiatives to exploring new models to address the structural and systemic issues on a priority basis.

Suggestions

- An overhaul of capacity and capability of 3 existing programmes such as ICDS, MDM and NNM should be the first priority.
- For purposeful action both union and state government need to have common goals and metrics for improving nutrition.
- They should come up with metrics that are clear and measurable and a real-time tracking mechanism.
- The approach, commitment and resources therefore have to be inter-generational, multi-sector, and multi-dimensional.
- Government needs to mandate and scale staple food fortification comprising edible oil, wheat, rice and dairy products, in addition to salt.
- Nutrition has to be “marketed” and made interesting, engaging, simple and personally relevant.
- This is an expertise where the private sector can meaningfully contribute.
- Well-structured public-private partnerships could thus be the catalyst.

4.2 Considering the fact that combustible cigarettes are freely available across India, do you think an outright ban on e-cigarettes is the right approach to regulate this technology. Comment

- “e-cigar” is a new technology, and its long term health effects aren't known yet, but there are indications that they are better than conventional cigarettes.
- As combustible cigarettes are freely available throughout India, there are concerns on whether an outright ban against e-cigars is the right move.
- Instead of burning tobacco, e-cigars heat a liquid to generate a nicotine-containing aerosol that does not produce toxic tars.

Positives

- Some researchers argued that e-cigarettes must be viewed from a “**harm minimisation**” perspective as they are a better alternative.

- Given that combustible cigarettes are more noxious than electronic ones, switching from the former to the latter can help addicts to lead healthier lives.

Negatives

- E-cigarettes are a young technology, whose long term effects aren't known.
- Further, some carcinogens in e-cigarettes have already been discovered to have a non-linear effect (even small quantities having big effects) on cancer.
- There is also the risk of e-cigarettes acting as a gateway drug for young people and surveys have indicated that e-cigars are likely to increase addictions.
- Further, due to its branding as a healthier alternative it may end up promoting the habit of smoking.

Solution

- Completely banning the technology, while selling normal cigarettes, could take away a promising smoking-cessation aid.
- A more pragmatic option would be to regulate e-cigarettes tightly, by creating standards for the aerosols and banning underage and public use.
- This would leave smokers with a therapeutic alternative, while protecting youngsters from a gateway drug.
- Either ways, conflicting evidence makes it a tough call for policymakers and India should tread cautiously.

4.3 Prevention is better than cure. Discuss in the light of India's healthcare landscape and also discuss how India can shift its focus from curative healthcare to preventive healthcare.

- In our country, a disappointing 9.6% of the overall healthcare expenditure is spent on preventive healthcare.
- In other words, more than 90% of overall healthcare expenses go into treating diseases and their complications.

Advantages of preventive healthcare

- Prevention has always been affordable and easy. The cure, however, is largely expensive and usually very painful.
- Preventive measures such as getting annual health check-ups keep one informed and a few simple lifestyle and nutrition changes reduces the possibility of diseases.
- With the increased importance given to preventive healthcare, the pressure on secondary and tertiary healthcare systems shall significantly come down.
- The biggest advantage is that non-communicable diseases NCDs are invariably tackled first.
- Considering the fact that India's ratio of doctors and nurses per 1,000 people is dramatically lower than the WHO's average, prevention is the most efficient step to avoid further burden.

Curative to Preventive

- Make the public believe in the advantages of preventive healthcare and attract them into a routine of regular health check-ups.
- For that to happen, much has to change at the fundamental level.

- Greater accountability, shorter turnaround times through automation, next-generation logistics networks, value-added services like mobile application with real-time information, and a greater customer-centric approach starting with the basic establishment of a connection with customers are just a few changes that will make the biggest differences.

4.4 India has achieved a remarkable feat in arresting Maternal Mortality Rate (MMR), but there is much more to do. Analyse.

- As per the Sample Registration System bulletin released recently, India has registered a 77 per cent decline in the Maternal Mortality Ratio (MMR).
- Socio-economically backward areas referred to as the Empowered Action Group (EAG) States have registered the maximum decline in MMR.
- Several initiatives in health and nutrition areas such as Janani Suraksha Yojana (JSY), Pradhan Mantri Surakshit Matritva Abhiyan, Pradhan Mantri Matru Vandana Yojana have made this achievement possible.
- Improvements in key economic and social factors such as growth in per capita Net State Domestic Product, reduction in poverty ratio, increasing female literacy, declining child marriages are also major contributors.

Issues & Solutions

- **Regional inequalities** – Data pertaining to the different causes of maternal deaths need to be analysed and policy actions to be prioritised accordingly.
- **Haemorrhage** – Explore the possibility of a national blood transfusion service network considering that India has a blood supply deficit of 25 per cent as against the WHO prescribed reserve of 1 per cent of the population.
- **Anaemia** – A comprehensive package of services delivered by multiple ministries will need to be brought under the POSHAN Abhiyaan umbrella.
- It will foster convergence among programmes focused on the pre-pregnancy, pregnancy and post-pregnancy phases.
- **Shortage of trained human resources** – Human resource compensation packages for personnel working in remote and rural areas need to be made more attractive.
- Additionally, the focus in gynaecology training needs to be on imparting practical skills in the management of labour and deliveries.
- **Educate** – Investments in girls' education need to be stepped up.
- **Customised policy interventions** are the need of the hour.

5. CORPORATE GOVERNANCE

5.1 Public sentiment towards corporate sector is not overtly positive and even negative in some instances and it can be detrimental in the long run. Discuss how private sector can modify itself to ensure better perception and to rebuild the confidence necessary to trust the private sector.

- **Transparency** – Open and free communication, to the extent possible, will substantially help improve the perception of corporates in the mind of the common man.

- Appropriate and timely disclosures of major board decisions in the public domain by the private sector would help in a long way towards ensuring trust.
- **Corporate governance** – Recent issues of corporate governance across a spate of companies, including some reputed ones, have brought the reliability and credibility of India’s corporate sector into question.
- While the rules may have left some scope for ambiguity, it is important that as stakeholders in this ecosystem, the private sector takes a conservative stand wherever it can.
- Companies should avoid a “ticking the box” attitude to fulfilling regulatory requirements and try to assess the actual merit and follow such regulatory requirements.
- **Shareholder to Stakeholder** – The focus today continues to be working towards creating value for the shareholder.
- However, overall value creation is higher for all groups if a stakeholder approach is undertaken.
- This will include customers, employees, regulators, government and the society at large.

6. BILATERAL/INTERNATIONAL RELATIONS

6.1 There is a tendency in some quarters to see India’s interests in BIMSTEC as part of its strategy to isolate Pakistan. Do you agree with the view? Justify your stand.

- India’s intention was neither to isolate Pakistan nor to depress SAARC.
- In fact, India did its best, whenever opportunities emerged to revitalise SAARC grouping.
- For example, at the 18th SAARC Summit in Kathmandu, in 2014, India proposed the SAARC Motor Vehicles Agreement.
- However, this could not progress due to resistance from Pakistan.
- Pakistan also opted out of the ambitious SAARC Satellite project proposed by India, leading to a change in its name to the South Asia Satellite.
- These two recent instances underscore India’s genuine attempts to revitalise SAARC.
- A dormant SAARC limited both the scope of India’s growing economic aspirations as well as the role it could play in improving regional governance.
- This had derived India’s interests in the BIMSTEC forum.
- Now, BIMSTEC has gradually emerged as a key vehicle to take forward India’s regional, strategic and economic interests.
- The main motivation for India to push BIMSTEC is thus not Pakistan; rather, it is in the country’s interest to ensure that the region does not lag behind and that an unstable neighbourhood does not drag its growth.
- India’s desire to link South Asia to the economically dynamic Southeast Asia is also a part of this strategy.

6.2 Given the immense potential and the peace dividend that comes by encouraging bilateral trade, discuss how India and Pakistan should bridge the gap between their actual and potential trade.

- **Value chain** – In a highly integrated and interdependent global economy, regional value chains provide big opportunities for India and Pakistan.
- They could diversify their exports and imports and intensify their integration into the global economy for the greater benefit of all.

- Developing bilateral, product-specific, regional value chains in sectors such as “**textile, clothing, sports goods and surgical equipment**” hold the key.
- **Alleviate fears** – It is important to alleviate fears, misconceptions and the trust deficit in the trading community.
- **B2B contact** – Business-to-business linkages need to be formed and strengthened between actual traders.
- While this can be initiated at the level of product-specific industry associations, this must also be taken up by national chamber associations.
- **SAARC visas** – Though announced in 2014, there has been a delay in its implementation.
- South Asian Association for Regional Cooperation (SAARC) business traveller visas must be implemented in practice.
- **Political level Engagements** – It is important to recognise that economics and politics are not completely disconnected from each other.
- Engagements at the political level will be an important factor to reinforce economic ties between the two countries.
- There also needs to be focus on other issues such as key items in the textiles and clothing sector, border infrastructure and security, improved connectivity by sea and air, enhanced people-to-people contact and educational exchanges.

6.3 India has become the third Asian country to get the Strategic Trade Authorization-1 (STA-1) status. What is Strategic Trade Authorisation? Discuss the significance of the recent move for India.

- India has now been elevated to the STA-1 list of countries from STA-2 list.

Strategic Trade Authorisation (STA)

- STA is a move towards a **licence-free or license exemption regime**. Accordingly, two lists were created namely STA-1 and STA-2.
- **STA-1** – STA-1 countries are America’s most trusted allies. The US considers the non-proliferation controls of these countries the best in the world.
- These are also among those that are part of the four multilateral export control regimes.
- STA-1 countries have licence-free access to almost 90% of dual-use technology.
- They are also eligible to import items for reasons of national security, chemical or biological weapons, etc.
- This is irrespective of whether the technology or item impacts regional stability or American national security.
- **STA-2** – Countries in the STA-2 list enjoy some form of licensing exemption.
- But they cannot access dual-use items/technology that may impact regional stability, or contribute to nuclear non-proliferation, etc.

Significance

- China, Pakistan, and Russia are on neither list. Albania is a NATO member, but is still in STA-2, and Israel, a major US ally, is not in STA-1.
- Given these, India joining an elite group of allies of the US is a significant move.
- India is now part of STA-1, despite not being member of all four multilateral export control regimes.

- This is thus another testament to India's non-proliferation credentials.
- India can now access 90% of defence technology and equipment for dual-use supplied by US government and its defence industry.
- It is expected to lead to greater high-technology trade and commerce.
- For Indian high-tech industry, this could open up doors for both sales and manufacturing in India.

GS - III

7. ECONOMY

7.1 *The government should address the troubles of the power sector, but not at the cost of Insolvency and bankruptcy code (IBC). Discuss in the light of the recent RBI circular and Allahabad High court judgement.*

- The recent RBI circular requires banks to finalise a resolution plan in case of a default on large accounts of Rs 2,000 crore and above within 180 days.
- Failing this would result in insolvency proceedings being invoked against the defaulter.
- Power sector is one of the most financially stressed ones.
- But, power producers, government and even the lenders, mostly public sector banks were not keen on implementing the RBI circular.
- They argue that the power sector's problems had more to do with external factors such as
 - a) fuel shortages due to cancellation of coal block allotments or lack of supply linkages
 - b) absence of power purchase agreements signed by State discoms
 - c) cost overruns due to delayed clearances
- Hence, the Centre called for regulatory relief for the power sector and sought an extension of the deadline for the sector.
- But, Allahabad High Court has decided rightly to deny interim relief to power companies from the RBI's circular.
- Because, it is RBI's discretion to decide whether any particular sector deserves regulatory exceptions or not.
- Any intervention by the High Court would entertain obfuscation of the RBI's regulatory powers or of the sanctity of the IBC.
- Granting any relief would have led to pleas for exemption from other sectors too.
- The government should display greater urgency in tackling systemic issues in different sectors, but there should be no deviation from the IBC path it has embarked on to fix the banking stress, that is **hurting the entire economy**.

7.2 *A strong regulator may serve as a good deterrent, but too much dependence on deterrent provisions could also scare away genuine investors. Discuss in the light of the recommendations proposed by T.K.Viswanathan committee on Fair Market Conduct.*

- The committee has recommended that the SEBI should be granted the power to act directly against "perpetrators of financial statements fraud".

- In essence, this means SEBI can act not only against listed entities under its extant powers but also against those who aid or abet financial fraud – including accountants and auditors.
- It goes to the extent of recommending that SEBI should be given the powers to tap phone calls.
- Greater executive powers can help the regulator take swifter action against offenders and also free it from various manifestations of political influence.
- But, banking on fear too much could also scare away genuine investors.
- Given that SEBI is now considering a cap on trading by retail investors based on their assessed ‘net worth’, the committee’s suggestion that it may consider any trading by players beyond their known ‘financial resources’ as fraud could lead to undue harassment of investors.
- There must be caution about regulatory overreach while granting SEBI more powers.

7.3 *What is a proxy firm or institutional advisory firm? Discuss its significance and why regulating them is essential?*

Proxy firms (or) Institutional advisory firms

- Market regulator SEBI has defined a proxy adviser as any person who provides advice, through any means, to institutional investors or a shareholder of a company, in relation to the exercise of their rights in the company, including recommendations on public offer or voting recommendation on agenda items.

Significance

- Proxy advisory firms research and dig out information about the company, its directors, and promoters, and advise institutional investors – who may have invested in hundreds of companies, and don’t have detailed information on all of them – to vote on resolutions put to vote by managements in AGMs.

Why its regulation is essential?

- Increase in voting through proxy advisory services will lead to concentration of voting power in the hands of a few proxy agencies.
- Domestic proxy advisory firms are regulated by SEBI, which says the proxy adviser should disclose the extent of research involved in a particular recommendation, and the extent and/or effectiveness of its controls and procedures in ensuring the accuracy of the issuer data.
- But, foreign proxy advisory firms are not regulated in India and in most other jurisdictions.
- This had led to a situation where voting power concentrates in the hands of a few **global** agencies and questions the very basis of well-run, widely held companies and diversified ownership.
- Indian proxy advisory firms are regulated by SEBI. So, foreign firms should also be brought under regulation to create a level playing field.

7.4 *In the light of the proposed shift in benchmark for reference population from 1971 to 2011 discuss the problems in using raw population figures to determine the weights for financial allocation across states and examine the factors which need to be consider before allocation to overcome such problems.*

Problems

- It will undermine the efforts taken by states that have done extremely well in achieving the national goals set in the Five-Year Plans to reach replacement level of fertility.
- It will incentivize population growth and encourage states to further reduce its population control measures.
- It will fail to satisfy differential needs of different states arise due to population control measures.

Factors

- Internal migration (labour force, food security)
- Dependency (Relative share of elderly population and their health care and social security needs)
- Longevity (Life expectancy)
- Huge fiscal costs required to sustain the progress in reducing population growth.

8. AGRICULTURE

8.1 Farm loan waivers are both a populist and a myopic strategy. Analyse.

Populistic

- Farm loan waivers have become a **popular demand** and a **politically attractive option** to address agrarian stress.
- A waiver is an easy way out with an eye on the upcoming elections.
- It may benefit politicians but not the farmers and the state.
- It will impact credit discipline and vitiate credit culture.
- It is bad for the fiscal health of the state.

Myopic

- Farm loan waivers are a tool to address agrarian distress **temporarily**.
- The seeming relief given to the farmer is no relief at all because the loan waiver does not address the real problems that plague agriculture.
- A majority of farmers do not take loans from banks. It is often the comparatively better-off farmers who are able to access bank credit.
- All bank loans are supposed to be insured under various insurance schemes of the government.
- Farm loan waivers do not cover loans from the non-banking sector.

Issues still unaddressed

- Lack of irrigation facilities, wrong and faulty practices, small and unviable holdings, dependence of too many people on farming and inadequate insurance facilities, infrastructural deficit are serious handicaps of this sector.
- Cold storage and marketing facilities are poor and inefficient and farmers are exploited by middlemen.
- Farmers will benefit only if these problems are tackled.

8.2 Intermediaries are often blamed for driving a big wedge between prices that consumers pay and prices that farmers receive. Evaluate how far such criticism is valid.



- The two most common accusations before intermediaries are –
 - a) Several layers of intermediation before the output reaches the consumer increases the wedge between retail and farm gate prices
 - b) Intermediaries earn rent without providing any value addition.
- In contrast, Economic theory views intermediation as “greasing the wheels of the economy” rather than necessarily causing inefficiency.
- Also, multiple intermediaries increase consumer welfare by inducing competition.
- Time is a major constraint which prevents farmers from marketing their own crops, giving rise to intermediaries.
- Furthermore, transportation and marketing require **specialised skills** that farmers may not have.
- Lack of storage and perishability **increases the risk** that agents downstream the supply chain face.
- In general, price wedges comprise transport costs, processing costs, and rents due to inefficiencies.
- Viewed from the lens of division of labour, intermediaries may not be the source of the problem.
- They could simply be earning the marginal value for their services and the risk they bear.
- Therefore, forcing them out could potentially disrupt the agricultural supply chain as happened in Bangladesh.

9. SCIENCE & TECHNOLOGY

9.1 Though we have invested all our energy in science education right from the early schooling, we have managed only to produce collective mediocrity in these fields year after year? Examine why.

Reasons

- **Nature of school education**
- While all over the world, children are becoming more **independent** in terms of their **intellectual practices**, our students are becoming more and more like little soldiers marching from one class to another tuition.
- Science education is **not egalitarian** and is designed to keep people out rather than embrace diversity and multiplicity of background, language and talents.
- This is done in the name of merit, and yet it is precisely this merit that we lack on the global stage.
- **State of science administration**
- Funding agencies like the Department of Science and Technology and a host of others which disburse hundreds of crores of rupees for research in science are **not held accountable** to the results of that funding.
- So many projects worth crores end up with some minor publications.
- Worse, scientists know best how personal contacts and networks are still so important in securing funds and other incentives in science in India today.
- **Cultural response to the idea of excellence**
- The school system as well as science administration are both linked together by a common problem: the inability to understand and deal with excellence.
- In academic institutions across the country, it is far more difficult for a person to stand out in terms of high quality work since the system has **little support for excellence**.
- Part of the reason is that we do not have confidence in our own judgment of quality.



9.2 What is Thermal Battery technology and how it differs from Conventional battery technology? Also discuss its applications.

- It is a new energy storage form that is expected to have commercial applications, while also maintaining a low carbon footprint, and being less dependent on external factors like weather.
- Conventional battery technology is based on the system of charging/discharging cycles that are driven by electricity.
- Thermal batteries, on the other hand, use thermal energy to operate, i.e., the energy created by temperature differences.

Applications

- **Integration with power grids** – In the field of power transmission, thermal batteries will be able to function as long as there is a heat source to drive their operation.
- This could help solve power issues in remote areas, and also address rising energy requirements from regional or national grids.
- Power-intensive industries will also be major beneficiaries, and the transformation will mean reduced dependence on fossil fuels for energy.
- **Telecom infrastructure** – Thermal batteries will help maintain signal strength and network connectivity.
- This, in turn, could also improve internet penetration and ultra-fast mobile services.
- **E-vehicle manufacturing** – With thermal battery technology, car makers could consider going green, and deploy clean energy at minimal maintenance costs.
- At the same time, e-vehicles could also derive charging power from stations that run on thermal batteries.

9.3 Discuss the significant benefits that India can accrue from indigenous manned space mission.

- **Great power status** – Achievements in outer space are a marker of great power status.
- It will stamp India's entry into the club of 'Space Powers' and mark India as one of the great power countries.
- **Industry** – Things necessary for the survival of astronauts in space would be entirely new things made for a specific purpose.
- In this scenario, new industries may come up to support the new demands.
- New entrepreneurs will emerge, and private funding in the space sector in India could see a quantum jump.
- **Research** – It will open many new avenues for space research in India.
- An indigenous manned space mission would eventually lead to a huge expansion of the Indian space programme.
- **Standards** – Apart from being an issue of national pride and prestige, it can raise standards of science and technology in India.
- The standard of higher education in the field of aeronautical engineering, aerospace engineering and physics would be impacted positively, and would get a major boost as well.
- **Motivation** – It would kindle an interest in space.
- Millions of children and teenagers studying in schools, who were probably not interested in the science of space, could start gravitating towards it.
- It would give a self-belief to our engineers, scientists and India as a nation.

- **Security** – The securitisation of outer space and emergence of areas like space security—having an impact on national security—have led to a situation where outer space is increasingly seen as a ‘strategic domain’.
- Thus, any feat in the area of outer space is crucial and enhances India’s space security.

10. ENVIRONMENT

10.1 Global Footprint Network (GFN) had recently highlighted that the Earth Overshoot Day (EOD) is constantly moving up the calendar. What is Earth Overshoot Day? Also, discuss how such trend could be reversed.

Earth Overshoot Day

- Earth Overshoot Day marks the date when we (all of humanity) have used more from nature than our planet can renew in the entire year.
- August 1 was marked the Earth Overshoot Day (EOD, previously Ecological Debt Day) this year. EOD fell on August 2 last year.
- It implies the humanity consumed natural resources (forest/crop/grazing lands, water, clean air, fishing areas) a day earlier than what the Earth’s ecosystem can provide for the entire year.
- From an economic perspective, EOD represents the day the humanity enters **ecological deficit** spending.

Impacts

- The costs of this ecological overspending include deforestation, collapsing fisheries, fresh-water scarcity, soil erosion, biodiversity loss, buildup of carbon dioxide in the atmosphere.
- It will lead to climate change and more severe droughts, wildfires, and hurricanes.
- These threats can produce desperation and force many people to migrate to cities or other countries.

Measures

- **Population** – Stabilise population growth
- **Cities** – Replace cars with public transports, biking and walking
- **Food** – Strive for zero-waste
- **Energy** – Reduce the carbon component of humanity’s Ecological Footprint

10.2 In India waste recycling rates are languishingly low. Examine why and also discuss the benefits of promoting recycling industry in India.

Reasons

- There is neither strong social awareness nor enough political will to promote recycling as a way of life.
- Waste collection and segregation mechanism is largely unorganised.
- Most municipal infrastructure is dated and inadequate in terms of collection and transportation.
- Appropriate technologies to maximise recovery from recycling are still nascent.

Benefits

- Environmental and social gains
- Reduce dependence on scrap imports
- Generate new jobs

Course of action

- Thus, a transition is imminent to raise the quality of economic growth from the depletive 'produce-consume-dispose' led linear economy to a 'reduce-recover-reuse-recycle-redesign-remanufacture' led circular economy which is more regenerative and restorative in nature.
- There is a felt need for a more comprehensive policy and regulatory simplification aiming at a formal ecosystem and 'ease of doing business' for recyclers.

10.3 *Why it is important to prevent coastline erosion? Does the recent draft Coastal Regulation Zone (CRZ) Notification serve the purpose? Comment*

Importance

- Seashore harbours valuable mangroves, seaweeds, coral reefs, and other kinds of marine biodiversity, which serve as a source of raw material for several industries, notably pharmaceutical and cosmetic units.
- In its natural state, this eco-system has a sobering influence on saline winds, cyclones, sea waves and incursion of seawater into underground aquifers.
- This belt is ecologically highly sensitive because of the constant interaction of marine and territorial ecosystems and, therefore, needs cautious handling.

Concerns with CRZ – 2018

- Under this notification, even some of the fragile coastal areas are mooted to be opened up for tourism and other purposes by simplifying the project clearance procedures and giving greater say to states to manage the seaside tracts.
- The changes mooted in the land use of the CRZ-I and CRZ-II, for instance, can be a case in point.
- The zone-I comprises ecologically the most sensitive areas, which are currently marked "off-limit" for tourism and infrastructure has been allowed to be used for nature trails and eco-tourism, though with the state government's consent.
- Similarly, zone-II, comprising relatively undisturbed areas close to the shoreline, which has a "no development" belt of 200 metres, is proposed to be redrawn to restrict the no-development strip to merely 50 metres.
- Environmentalists feel that this would impair the ecology of the coastal belts and might aggravate sea erosion.

Suggestions

- Instead of relaxations government should concentrate on taking anti-erosion measures such as creating wave-breakers and raising vegetative protection belts of the kind successfully tried out in the tsunami-hit areas.
- The most endangered regions should, at least, be effectively shielded against any kind of potentially erosive activity.



10.4 Critically examine the challenges for ‘Namami Gange’ mission – India’s most ambitious endeavour to clean the Ganga river.

- Most of the Ganga is polluted and it is due to five States on the river’s main stem Uttarakhand, Uttar Pradesh, Jharkhand, Bihar and West Bengal.
- **Industrial pollution** from tanneries in Kanpur, distilleries, paper and sugar mills in the Kosi, Ramganga and Kali river catchments is a major contributor.
- So far, the State governments only have concentrated on superficially cleaning the river by using trash skimmers and improving crematoria-infrastructure.
- **Insufficient capacity** – Approximately 12,000 million litres a day (MLD) of sewage is generated in the Ganga basin, for which there is currently a treatment capacity of just 4,000 MLD is available.
- This is mainly due to
 - a) non-availability of land
 - b) slow progress of work by contractors
 - c) delay in execution of projects
- **Shortage of human resource** is also one of the major challenges.
- **Unused funds** – A financial audit also suggested that while Rs. 20,601 crore had been sanctioned for 193 projects, only Rs. 4,254 crore had actually been spent on their implementation.

10.5 Despite several efforts, climate change awareness seems to find low salience in everyday lives and conversations. Discuss the significance of climate change education and what more can be done to improve the situation?

- In 1991, Supreme Court (SC) directed the Central government and all State governments to provide compulsory environmental education to all students.
- Further, the court had directed “corporate organisations, research and education institutes, NGOs” to create awareness on the same.
- However, despite such efforts, and the reach of the court’s order, climate change seems to find low salience in everyday lives and conversations.

Significance

- Education is an essential element of the global response to climate change.
- It will help to address the root causes of climate change, mitigate the damage, and adapt to its effects.
- It will assist young people understand and address the impact of global warming, encourages changes in their attitudes and behaviour.
- It helps to increase the resilience of already vulnerable communities who are the most likely to be adversely affected by climate change.
- If properly structured, it will not only foster climate literacy, but also reorient the entire system to achieve low-emission and climate-resilient development.

Suggestions



- At present, climate change is not specifically mentioned as a domain permissible under “Corporate Social Responsibility” (CSR) mandate. A more specific mention will help it gather more attention.
- Rope in more corporate organisations to create awareness, mitigation and resilience-building.
- Scaling up current initiatives of the corporate and social sectors to regional or national levels would be an early, albeit challenging, solution.
- Similarly, the film industry, book writers, and gaming companies could design their products with an appeal in this regard.

11. INFRASTRUCTURE

11.1 *Implementation of fracking process without a consultative thought through process may result in larger issues. Discuss in the light of the shortfalls associated with the Directorate general of Hydrocarbons (DGHs) guideline on environment management during shale gas extraction.*

Shortfalls in the guideline

- The DGH in its guideline proposes five new reference points relating to water issues in the fracking process that a project proponent must explain while applying for the environmental clearance.
- However, these five reference points are not succinct to resolve the water-specific issues posed by the fracking activities.
- Shale rocks are usually adjacent to rocks containing aquifers.
- While fracking, the shale fluid could possibly penetrate aquifers leading to methane poisoning of groundwater.
- Acknowledging this complexity, it states that a project proponent must design and construct wells with proper barriers to isolate and protect groundwater.
- But it misses out on broadly describing the nature or properties of a barrier that can be considered ‘proper’ to isolate and protect the groundwater.
- The flowback water is usually methane-contaminated and poses different recycling and leakage issues than usual wastewater.
- The guideline neither proposes any substantive treatment method nor recognises the increase in flowback water during repeated extraction of shale gas from a well over a period of time.
- However, the guideline also falters and states that these challenges will be dealt while granting environmental clearances as per the Environment Impact Assessment (EIA) process.
- The EIA process, however, does not differentiate between conventional and unconventional hydrocarbons.
- Implementation of the fracking processes without a consultative thought through process, especially on ‘water usage policy’, may result in larger issues including water stress, contamination of groundwater, and related health hazards.
- As a first step, a sector-specific EIA manual on exploration and production of unconventional hydrocarbon resources may be a good idea.

11.2 *Dams in India do more harm than good. Discuss.*

Good



- Provides water for irrigation
- Helps in power generation
- Prevents uncontrolled flooding

Harm

- **Displacement** – Dams store millions of tonnes of fresh water in large reservoirs, submerging prime forests, villages, farms and livelihoods.
- For example, 4,700 large dams built since 1947 have cumulatively displaced 4.4 million people.
- This makes dams the single largest cause for displacement post-Partition.
- **Affecting the poor** – Over 85% of them are used in agriculture for producing cash crops such as sugarcane.
- Dams have displaced the poorest of India's people in favour of richer farmers and urban residents, often with little or no compensation.
- **Hazardous** – Dams are far more hazardous than any other infrastructure project, except nuclear plants.
- For example, according to the India Water Portal, over 100 dams in India which are over a century old, and more than 500 large dams which are 50-100 years old, many of which have major defects and need urgent repair.
- **Seismic events** – It is also accepted today that dams can trigger seismic events.
- The reservoir-induced seismicity (RIS) from the weight of the reservoir has resulted in earthquakes in various parts of the country: of the 75 cases of RIS reported worldwide, 17 have been reported from India.

Balancing act

- The scale and frequency of natural disasters is growing.
- The immediate task is to critically review every dam in the country, decommission those that are at end-of-life, stop building new ones and establish sound safety protocols.

11.3 *Despite the market's breakneck expansion over the past decade, the growth of Indian aviation sector has often been profitless. Examine.*

Growth of Indian aviation market

- According to the DGCA, India's air passenger traffic has grown by at least 16% annually over the past decade.
- It is now the third largest aviation market in the world. Yet, that growth has been largely profitless.
- It is accepted that the airline business is a risky one around the world with high Capex (capital expenditure) and low profit margins. But India is a special case even so.

Issues with the Indian aviation sector

- **International factors** – About 25-30% of their costs, excluding fuel, are dollar denominated and a depreciation of rupee value will hit carriers badly.
- **Aviation turbine fuel (ATF)** – The Centre charges 14% excise duty on ATF. The states pile on their own sales tax that can go as high as 29%.
- This is worrying since competing hubs like Dubai and Singapore charge far lower rates.

- ATF charges, vulnerable to currency movements, comprise a large chunk of Indian airlines' operating expenses.
- **Competition** – The breakneck growth sets up intense competition among domestic carriers which makes it difficult to raise ticket prices.
- **Regional connectivity scheme** – Its goal is laudable and it may well benefit potential flyers in smaller towns.
- But, the ticket price caps it imposes under the scheme, the fact that the viability gap funding will last only for three years and various operational issues, such as the lack of slots for connecting flights at major airports, mean that carriers are, by and large, left holding the can.
- **Heavy Capex requirement** to keep up with market growth.

11.4 *Tripling the production of bio fuels by 2022 is an ambitious plan but the proposal to use various kinds of farm produce for this purpose is not beyond dispute. Critically discuss.*

- India's plan to triple the production of bio-fuels in four years is an ambitious and a positive move to reduce the excessive dependence on imports for meeting the energy needs.
- But the proposal to use various kinds of farm produce — and not just agricultural wastes — for this purpose is not beyond dispute.

Concerns with the plan

- **Production** – It is proposed to use various kinds of farm produce and not just agricultural wastes for this purpose.
- This can potentially distort the pattern of agricultural output **in favour of energy crops.**
- **Ethanol** – The liberties granted to ethanol manufacturers remain contentious.
- They are allowed to choose their feedstock from a range of crops and other farm materials.
- These include sugarcane juice, sugar containing crops such as beetroot and sweet sorghum, starchy crops such as maize and cassava, damaged food grains such as wheat, broken rice and potato.
- Evidently, many of these are part of the human or animal food chains.
- **Sugar industry** – Ethanol drawn directly from cane juice could amount to a complete bypassing of sugar production.
- Farmers would also be encouraged to produce more of this water-intensive crop.
- This could be at the cost of other crops that can be grown on the prime irrigated lands.
- Despite farmers' benefits, such moves may pose problems in the wider economic interests.
- **Bio-diesel** – For biodiesel, the new plan envisages utilisation of non-edible oilseeds and short-gestation oil-bearing crops.
- This disregards the fact these oils are used in the pharmaceutical, cosmetic and other industries.
- Given these, the well-intentioned bio-fuel plan does need some judicious alterations to address the concerns.

11.5 *Critically examine the challenges that have been ailing the pharmaceutical industry in India and suggest measures to overcome such challenges.*

Challenges & Solutions

- **Poor investment in healthcare** – Public investment in healthcare is still struggling to touch the 2% GDP mark, which is not only affecting the hospital industry, but the pharmaceutical industry as well.
- A 1-2% increase in investment in healthcare, and perhaps a minimum dedicated investment for the pharmaceutical industry, will give the industry the required boost to strengthen its manufacturing output and upgrade quality standards across the board.
- **Ensuring a level-playing field** – The existing focus has been on promoting low-scale, indigenous manufacturing enterprises, to push unbranded generic medicines at a cheaper rate.
- While the same may seem beneficial for the poor, it should be allowed only when domestic entities match quality standards with the medicines exported to other countries.
- Low quality is not only detrimental to the credibility of the industry at large, but also to the health of the nation.
- Regulatory authorities such as the CDSCO should be empowered to ensure compliance.
- **Limit the medicines subjected to price control** – Research and development, coupled with the entire manufacturing process, and added quality checking mechanisms such as pharmacovigilance, all add to manufacturing cost.
- Extending the number of medicines subjected to price control will adversely affect the production of quality products, in order to maintain sustainability.
- **Ensuring quality standards** – Stronger guidelines for manufacturing drugs, due diligence in maintaining data integrity, and implementation of strong hygiene policy are essential elements to ensure quality standards.

Road to future

- The government has recently provided much hope and positivity, by initiating the draft Pharmaceutical Policy 2017, which lays significant focus on the quality concerns challenging the industry.
- More such initiatives are required, and at a fast pace, for India to dominate the global pharmaceutical industry.

11.6 *State power distribution companies in India continue to make losses despite multiple bailouts. In this context, do you think privatization of discoms – a possible solution to the existing issues? Comment*

- While the government's Ujjwal Discom Assurance Yojana (UDAY) scheme seeks to reduce discom losses, there is hardly any impact on their financial status.
- Discoms continue to face power theft, billing inefficiencies and regulatory delays in tariff increases, resulting in financial losses.

Arguments favouring

- Operational autonomy
- Profit motive will create a more efficient value chain
- The private sector's ability to strategize and plan for the long term is essential in an area like power distribution.
- It would bring in competition in the sector and help consumers get quality power at cheaper rates.

Arguments against

- Private companies will prefer to take distribution of power only in urban areas where the income would be more.
- This result in a lopsided market scenario, where the profitable urban centres would go into the hands of private companies, while the loss-making or less income generating villages remaining with state-owned discoms. This will throw the discoms into financial crisis.
- Distribution privatization continues to face scepticism due to mixed results in the past.
- This is evident from Odisha, where all the private power distribution companies are now back in government hands.
- The experience of the franchise and parallel licensing in Mumbai and privatization of power distribution in Delhi are also not encouraging.

12. DISASTER MANAGEMENT

12.1 *Dams are cited as one of the possible reasons for the recent Kerala floods. Examine why. Also, suggest how such devastating floods can be controlled in the future.*

- Though excessive rains filled the dams, experts blamed **poor water flow management** from the reservoirs for the inundation of Kerala.
- Water experts are saying that the intensity of Kerala floods could have been reduced if the water from 35 big dams in Kerala was released much earlier.
- The major issue with the dam management is the authorities always look to store the maximum amount of water in reservoirs during the monsoon season.
- It is then used for irrigation and generation of electricity during the summer months.

Suggestions

- **Dams** – The water level of a reservoir should be kept below a certain level before the onset of the monsoon season. This is an internationally accepted practice.
- This ensures that there is enough space to store the excess rainwater when the monsoon rains come and also facilitates releasing water in a regulated manner.
- **Policies** – It is high time that government formulate water management policies for reservoirs.
- This should be in such a manner that dams are used to control floods, and not cause them.
- There is also a need to act on decentralised alternatives involving water recycling and reuse.
- **Authority** – Dam and water management is vested with the Public Works Department, Electricity Board, and Irrigation Department.
- But even in normal conditions there are contradictory opinions among these. This poses implementation hurdles to the decisions taken.
- So, the State Dam Security Authority, if competent, should be entrusted with the task of water management in reservoirs.
- It should also be empowered to take decisions in emergency situations.
- **Electricity** – The over-dependence on hydel projects to produce electricity is another driving factor.



- So enhancing non-conventional sources for electricity generation is important in this context.

12.2 *Would the implementation of the recommendations of Madhav Gadgil report have lessened the impact of the Kerala floods? Critically Analyse*

- A sustained and intense downpour seldom witnessed in 100 years may be the immediate cause of the unusually devastating floods in Kerala.
- But, the contribution of man-made factors to this calamity cannot be disregarded.
- Kerala witnessed widespread deforestation, rampant construction and indiscriminate quarrying in past 100 years which has triggered landslides and also obstructed water channels which is worsening the deluge.
- The Gadgil report strongly batted for declaring the entire Western Ghats as an ecologically sensitive area, assigning three levels of sensitivity to its different reaches.
- It had called for a ban on all developmental activities in the highest-vulnerability areas, while; only some such works were to be undertaken in the other areas, under the strictest regulation.
- It had also pointed out that many reservoirs in the Western Ghats states, especially those in the steep valleys, were silting up prematurely due to massive encroachment and deforestation of catchment areas.
- But, all the six stakeholder states—Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu—rejected the Gadgil Commission report in 2011.
- However, the Kerala disaster essentially has been caused by extreme rainfall.
- Even if the state governments had begun implementing the recommendations in all seriousness immediately thereafter, it is not clear how it would impact.
- So, the underlying message from these disasters is the need to learn lessons from past tragedies, and increase the resilience of disaster-struck areas through sustainable and long-term development that would involve minimal intervention in natural processes.

13. DEFENCE

13.1 *The idea of forming integrated military Theatre Commands gains momentum in recent times. What is an integrated theatre command? Does India really need such type of commands? Analyse.*

Integrated theatre command

- An integrated theatre command envisages a unified command of the three Services, under a single commander, for geographical theatres that are of security concern.
- The commander of such a force will be able to bring to bear all resources at his disposal (from the IAF, the Army and the Navy) with seamless efficacy.
- The integrated theatre commander will not be answerable to individual Services, and will be free to train, equip and exercise his command to make it a cohesive fighting force capable of achieving designated goals.

Concerns



- The proposal for standalone theatre commands like the pilot in Andaman & Nicobar Islands lacks clarity on the overall picture.
- There are also underlying fears about the smaller Services losing their autonomy and importance.
- The Indian Air force has also expressed that it doesn't have enough resources to allocate them dedicatedly to different theatre commanders.
- The Navy considers the current model of control by the Navy Headquarters ideally suited for its strategic role.

Suggestions

- India is not geographically large enough to be divided into different theatres, as resources from one theatre can easily be moved to another theatre.
- The evolving nature of the warfare has changed the way combat is carried out and the focus on integrated commands might actually be redundant.
- Further, it's only for far off offensive missions that theatre commands are more suited to and home defence is largely done through conventional commands.
- With technological advancements in weaponry, the focus should be more on upending the defence arsenal and its operability.
- The future battle field is lesser about mobilizing large armies and more about better surveillance, and cyber capabilities to pre-empt attacks.
- In this context, reducing the tooth-to-tail ratio (combatants-to-support staff) and improving the potency of the tail operators is vital for the military.

14. INTERNAL SECURITY

14.1 *The trajectory of Maoist violence has been showing a downward trend and it is being claimed that the challenge of Naxalism in the country is on its "last legs". How far are such claims valid? Also, discuss how India could use such situation to solve the problem completely.*

- The Home Minister of India recently claimed that the challenge of Naxalism in the country is on its "last legs".
- His assessment stems from the fact that the security forces have been achieving signal successes against the Maoists.
- The trajectory of Maoist violence has been showing a downward trend.
- It is also a fact that the total area affected by Naxalism has shrunk to 90 districts of the country.

Validity of such claims

- The above trends are, no doubt, positive. It would, however, be naïve to think that we are about to see the end of Naxalism/Maoism in the country.
- Historical overview has suggested that though Naxalism/Maoism had been disintegrated even in the past, it revived with a new phase.

Basic problems fuelling Naxal movements



- a) Inequality
 - b) Corruption
 - c) Agrarian unrest
- Such factors always have seeds of discontent, which have the potential to explode into a rebellion.

How to use the situation?

- The government now holds the upper hand again. It offers an ideal opportunity to solve the problem completely.
- The government of India has two options before it.
- One, that it goes ahead and crushes the Maoist movement. But, the possibility, in that case, is that the movement would resurrect again, maybe in a new avatar.
- The other option is to offer the olive branch to the Maoist leaders and carry out sincere measures to redress grievances, particularly those relating to tribals'.
- Any offer of peace from a position of strength is always credible and has greater chance of success.
- Simultaneous efforts in the direction of minimising the basic fuelling factors would go a long way in completely eradicating Naxalism/Maoism in the country.

